

**Product Assurance**

# **Army Quality Program**

**Headquarters  
Department of the Army  
Washington, DC  
15 April 1979**

**Unclassified**

# ***SUMMARY of CHANGE***

AR 702-11

Army Quality Program

This is a transitional reprint of this publication which places it in the new UPDATE format. Any previously published permanent numbered changes have been incorporated into the text.

Product Assurance

Army Quality Program

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By Order of the Secretary of the Army:

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Official:

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The Adjutant General

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**History.** The UPDATE issue is a reprint of the original form of this regulation that was published on 15 April 1979. Since that time, no changes have been issued to amend the original.

**Summary.** This is a new regulation which implements the DOD Quality Program set up by DOD Directive 4155.1.

**Applicability.** See paragraph 2.

**Proponent and exception authority.** Not applicable.

**Army management control process.** Not applicable.

**Supplementation.** Local limited supplementation of this regulation is permitted, but is not required. If supplements are issued, Army Staff agencies and major Army commands will furnish one copy of each to Commander, DARCOM, ATTN: DRCQA, other commands will furnish one copy of each supplement to the next higher headquarters.

**Interim changes.** Users of this regulation will not implement interim changes unless the change document has been authenticated by The Adjutant General. (Interim changes

expire 1 year after the publication date.) If a formal printed change is not received by the time the interim change expires, users will destroy the interim change.

**Suggested Improvements.** The proponent agency of this regulation is the US Army Materiel Development and Readiness Command. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, DARCOM, ATTN: DRCQA, 5001 Eisenhower Avenue, Alexandria, VA 22333.

**Distribution.** Active Army, C; ARNG, D; and USAR, C.

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**RESERVED**

## 1. Purpose

This regulation sets forth the Army Quality Program responsibilities, policies, and requirements.

## 2. Applicability

This regulation applies to Headquarters, Department of the Army, separate agencies reporting to HQDA, major Army commands, the Army National Guard (ARNG), and the United States Army Reserve (USAR).

## 3. Explanation of terms

Terms used in this regulation are explained in appendix A. Also see definitions in AR 310-25 and MIL-STD-109.

## 4. Objectives

The Army Quality Program will be implemented to—

- a. Ensure mission and operational effectiveness and user satisfaction with DOD products.
- b. Ensure that all services provided and products designed, developed, purchased, produced, stored distributed, operated, maintained, and disposed of, by or for the Department of Defense, conform to specified requirements.
- c. Effectively ensure that only minimum essential quality and related technical requirements are specified, consistent with a above.
- d. Tailor contractual quality requirements to meet the needs of each acquisition (AR 700-70).
- e. Ensure that all of the above are cost-effective.

## 5. Policies

The Army Quality Program policies are—

- a. Contractors will be held responsible for the quality of products and services by means of—
  - (1) Contract provisions that place responsibility on contractors.
  - (2) Exercising the right to reject or return contractor-responsible defective items for repair or replacement.
  - (3) Warranty clauses, when appropriate.
- b. Army activities will consider the use of—
  - (1) Contractual means for encouraging excellence in the conduct of contractor-responsible quality goals.
  - (2) Incentive fee arrangements for achieving quality goals.
  - (3) Reduced Government surveillance when contractor's quality performance so indicates.
  - (4) Other noncontractual motivation techniques.
- c. Contractors will be provided maximum flexibility in setting up efficient and effective quality programs within specified contractual requirements.
- d. Contractors will be held responsible for the quality of products and services furnished by their suppliers. Government inspection at supplier facilities will be held to an absolute minimum.
- e. Army activities will provide for inspection at destination whenever practical or required to ensure only quality products are accepted.
- f. Army activities will ensure that contracts are not awarded to contractors with a history of providing products or services of an unsatisfactory quality. Contractor quality history data will be maintained and used for this purpose.
- g. Army activities will plan and carry out a quality program as an integral part of all phases of the acquisition and support process. They will conduct quality audits to ensure the attainment of quality products and services.

## 6. Responsibilities

The AR 10 series describes responsibilities of the Army Staff and of the major commands. The Defense Acquisition Regulations (DAR), AR 70 series, and the AR 700 series describe specific responsibilities for Army acquisition; research, development, and testing; logistics; product assurance; and maintenance functions. Additional responsibilities for carrying out the quality program are described below—

- a. The Deputy Chief of Staff for Research, Development, and

Acquisition (DCSRDA) has staff responsibility for the acquisition portion of the quality program.

b. The Deputy Chief of Staff for Operations and Plans (DCSOPS) has staff responsibility for—

- (1) Overall force development.
  - (2) Prescribing mission and operational capability goals.
  - (3) Developing material requirements.
  - (4) Setting priorities for development and acquisition of material and training devices.
  - (5) Integrating resultant systems into the force structure.
- c. The Deputy Chief of Staff for Logistics (DCSLOG) has staff responsibility for the supply, maintenance, and operation portion of the quality program.

d. The Adjutant General is responsible for—

(1) Developing and furnishing hubs, cartoons, model casts, standard samples, and specifications to be used in central acquisition of heraldic items.

(2) Implementing a Heraldic Item Quality Control System for heraldic items on sale in Army and Air Force Exchanges, and those outlets which sell primarily to military personnel and their dependents (AR 672-8/AFR 900-7).

e. The Surgeon General (TSG) is responsible for—

(1) Overall management of an integrated Army-wide quality program for medical products and services.

(2) The safety and wholesomeness of the military food supply.

(3) Providing veterinary personnel to determine acceptability of subsistence supplies as to condition and wholesomeness.

f. The Chief of Engineers (COE) has Army Staff responsibility for formulating a quality program for military and civil construction projects.

g. The Chief, National Guard Bureau (NGB), is responsible for implementing a quality program for the Army National Guard.

h. The Chief, Army Reserve (CAR), is responsible for implementing a quality program for the Army Reserve.

i. The Commanding General, US Army Operational Test and Evaluation Agency (OTEA), is responsible for supporting quality programs for operational, force development, and joint user testing.

j. The Commanding General, US Army Troop Support Agency (TSA), is responsible for the administration of the Unsatisfactory Materiel Report (Subsistence) Program.

k. The Commanding General, US Army Materiel Development and Readiness Command, in addition to the responsibilities in k above, is responsible for—

(1) Developing and improving quality system methodology.

(2) Maintaining effective contact with other Government agencies, private industry, and universities on current technical progress in quality systems.

(3) Issuing information on new quality technologies throughout the Army.

(4) Setting up and carrying out a quality program in the conceptual, validation, full-scale development, and production phases; and for wholesale supply and depot-level maintenance operations.

(5) Providing Army members on the DOD Quality Assurance (QA) Council; the DOD Quality and Reliability Assurance (Q&RA) Career Management Board; the NATO Group of National Directors for Quality Assurance (AC/250), its panel, working groups and subgroups; and the Quadripartite Working Group on Proofing, Inspection, and Quality Assurance (QWG/PIQA) as required.

(6) Administering and operating of the Army's Q&RA career program.

(7) Establishing the recommended US Army position on NATO and allied quality assurance publications (AQAPs), NATO Standardization Agreements (STANAGS), and American-British-Canadian-Australian Quadripartite Standardization Agreements (ABCA QSTAGS).

(8) Developing and maintaining the Army Metrology and Calibration Program (AR 750-25).

(10) Providing Army support and assistance to the DOD QA Council and Q&RA Career Management Board.

m. The Commanding General, US Army Training and Doctrine Command (TRADOC), in addition to the responsibilities in k above,

is responsible for establishing quality doctrine for the Army in the field.

*n.* The Commanding General, US Army Communication Command (USACC), in addition to the responsibilities in *k* above, is responsible for developing and implementing quality programs for the engineering, installation, testing, and acceptance of communications-electronics equipment and systems as assigned.

#### **7. Quality program requirements for major systems**

*a.* Quality program requirements for major systems are shown in appendix B. Each phase of the acquisition and support process and product life cycle will be analyzed. Essential quality requirements will be defined, quantified, specified, measured, and assessed based on appendix B.

*b.* The Project/System Manager will ensure the adequacy of quality requirements of major system acquisition at Army Systems Acquisition Review Council (ASARC) review (AR 1000-1 and AR 15-14). Quality requirements will be specified, measured, and assessed for each step of the major system acquisition and support process. The Project/System Manager is responsible and accountable for the quality, reliability, and maintaining of assigned product(s) and will require that—

(1) Quality characteristics be specified and designed into the product.

(2) Characteristics be quantified whenever possible.

(3) Critical application items be identified and controlled.

(4) Quality and technical requirements be achieved.

(5) Test and evaluation be performed to ensure conformance.

(6) Design reviews and independent assessments be performed before completion of each milestone and actions be taken on deficiencies revealed.

(7) A copy of the assessment report be made available to the head of the DOD component concerned.

#### **8. Quality program requirements for non-major and secondary items**

*a.* Quality program requirements for non-major and secondary items will be tailored from the requirements of appendix B. Essential quality requirements will be defined, quantified, measured and assessed for each phase of the acquisition and support process.

*b.* The System Manager will ensure the adequacy of quality requirements of non-major and secondary item acquisition and support at inprocess reviews (IPRs) and milestone decision points. The System Manager is responsible and accountable for quality, reliability, and maintainability of assigned items and will require that—

(1) System and item quality requirements be allocated and specified down through component levels.

(2) Quality, reliability, and maintainability characteristics be designed into the product.

(3) Quality assurance provisions be established to provide the basis of materiel acceptance or rejection.

(4) Quality and technical requirements for acquisition and support be achieved.

(5) Test and evaluation be performed to demonstrate performance, and corrective actions be taken on deficiencies revealed.

#### **9. Quality program requirements for commercial items**

When a commercial item is purchased to satisfy a military need, contract quality requirements will be tailored to provide for—

*a.* Minimum essential requirements to ensure the contractor meets the design, performance, and product description.

*b.* Complete knowledge of configuration or engineering changes which could affect costs or performance.

*c.* Test and evaluation to ensure conformance.

*d.* Examination and acceptance at the most economical point of delivery (source or destination), and the use of certificates of conformance whenever practical.

*e.* Aiding the exercise of any warranty rights.

#### **10. NATO/International Logistics Quality Program elements**

Army activities conducting NATO/International logistics operations will include requirements in their quality programs to—

*a.* Performing quality assurance (QA) services on NATO/International military sales contracts, as requested.

*b.* Ensure conformance to technical and quality requirements on NATO/International military sales contracts.

*c.* Keep Government personnel and contractors informed on the use of NATO QA publications.

*d.* Specify NATO quality requirements in contracts awarded to other NATO countries and delegate QA services to the host government whenever satisfactory services are available, as appropriate.

*e.* Provide support for NATO AC/250 subgroups, as requested.

#### **11. Product deficiency reporting**

The Army product deficiency and data feedback system is described in AR 702-7 and TM 38-750. It provides for—

*a.* Cross-service/agency reporting of defective products in a uniform format.

*b.* Management visibility.

*c.* Necessary corrective action throughout the acquisition and support process or the product's life cycle by the appropriate action office.

*d.* Correlation of quality, reliability, and maintainability information.

*e.* Documentation of failed or defective items.

*f.* Cost effective engineering changes.

*g.* The maintenance of contractor quality history.

## **Appendix A**

### **Explanation of Terms**

(Source DOD Directive 4155.1)

#### **A-1. Quality**

The composite of materiel attributes including performance, features and characteristics of a product or service to satisfy a given need.

#### **A-2. Quality Program**

Program which is developed, planned, and managed to carry out, cost effectively, all efforts to effect the quality of materiel's and services from concept through validation, full-scale development, production, deployment, and disposal.

#### **A-3. Quality Assurance (QA)**

A planned and systematic pattern of all actions necessary to provide adequate confidence that adequate technical requirements are established; products and services conform to established technical requirements; and satisfactory performance is achieved.

#### **A-4. Quality Audit**

A systematic examination of the acts and decisions with respect to quality in order to independently verify or evaluate the operational requirements of the quality program or the specification or contract requirements of the product or service.

#### **A-5. Metrology**

The science of weights and measures used to determine conformance to technical requirements including the development of standards and systems for absolute and relative measurements.

#### **A-6. Calibration**

The comparison of a measurement system or device of unverified accuracy to a measurement system or device of known and equal or greater accuracy to detect and correct any variation from the specified requirements of the unverified measurement system or device.

#### **A-7. Assessment Report**

The report generated by an independent assessment of a major system during any phase of the acquisition and support process. This report—

- a.* Provides an examination and evaluation of technical requirements and status toward achievement of those requirements.
- b.* Identifies problems and problem causes and makes recommendations for correction of the problems.

#### **A-8. Products**

All items, materiel, materiel data, software, supplies, systems, assemblies, subassemblies, or portions thereof which are produced, purchased, developed, or otherwise used by DOD.

#### **A-9. Advisory Committee (AC/250 Group)**

National Directors for Quality Assurance responsible for formulating and promulgating NATO QA policy and procedures; includes subgroup, working groups, committees, and panels under the authority of the AC/250 Group.

## Appendix B

### Quality Program Requirements for Major Systems Acquisition and Deployment

PHASE:	CONCEPTUAL	VALIDATION	FULL-SCALE DEVELOPMENT	PRODUCTION	DEPLOYMENT
MILESTONE:	0 (Program Initiation)	(Demonstration and Validation)	II (Full-Scale Development)	III (Production and Deployment)	
QUALITY PHASED ACTIVITIES:	<ul style="list-style-type: none"> <li>Review approved mission element need statements</li> <li>Review parametric data on similar systems</li> <li>Analysis for determining minimum essential quality characteristics and R&amp;M</li> <li>Develop initial QA plans</li> <li>Perform (quality) assessment</li> </ul>	<ul style="list-style-type: none"> <li>Identify and define quality (physical, technological, psychological, and time oriented) characteristics</li> <li>Evaluate inhouse or contractor proposals for engineering development</li> <li>Prepare contract provisions for quality during development</li> <li>Identify special acceptance inspection equipment (SAIE) requirements</li> <li>Prepare test equipment calibration procedures</li> <li>Develop metrology and calibration plans for the product</li> <li>Perform independent (quality) assessment</li> <li>Update and refine quality requirements and QA plan for development</li> </ul>	<ul style="list-style-type: none"> <li>Producibility and quality engineering analysis               <ul style="list-style-type: none"> <li>Identify manufacturing, special production processes, and quality control methods</li> <li>Identify critical items</li> <li>Develop critical item planning</li> <li>Identify potential problem areas/risks</li> <li>Develop SAIE</li> </ul> </li> <li>Perform design review for quality characteristics:               <ul style="list-style-type: none"> <li>Initiate cost effective engineering changes</li> <li>Evaluate mfg &amp; assembly operations for ease of examination and test</li> <li>Develop test procedures</li> </ul> </li> <li>Identify NATO interfaces</li> <li>Prepare contract provisions for quality production</li> <li>Develop transition plan to prevent degradation of quality in production</li> <li>Perform independent (quality) assessment</li> </ul>	<ul style="list-style-type: none"> <li>Establish baseline control of engr. changes and configuration</li> <li>Provide for monitoring contractor or inhouse quality</li> <li>Quality inputs to production</li> <li>Provide for product and service quality audits</li> <li>Depot maintenance work requirements</li> <li>Destination-depot QA programs: product acceptance</li> <li>Data feedback system with deployment</li> <li>Product quality training programs: user orientation</li> <li>Logistics-provisioning QA program</li> <li>Update and implement QA plans</li> <li>Perform independent (quality) assessment</li> </ul>	<ul style="list-style-type: none"> <li>Monitor initially deployed system (assure user satisfaction)</li> <li>Implement storage and distribution QA plans</li> <li>Implement operations QA plans</li> <li>Implement military service QA plans for maintenance and overhaul</li> <li>Storage serviceability standards and cyclic inspection instructions</li> <li>Independent (quality) assessment of deployed systems and feedback system</li> </ul>
CONTINUING ACTIVITIES:	<div>Assess Quality of Weapon Systems To Identify Requirements, Achievements, Needed Quality Improvements and Unmet Needs</div> <div>Quality Assurance Programs for Services Procured Relative to Systems Acquisition and Deployment</div> <div>Tailoring of Specifications, Standards, and Data Requirements Related to Quality Assurance</div> <div>Provision of Metrology and Calibration Services</div> <div>Quality Data Feedback and Utilization</div>				
					DISPOSAL
					<ul style="list-style-type: none"> <li>Develop phase out and disposal plans               <ul style="list-style-type: none"> <li>QA Plan</li> <li>Decontamination</li> <li>Sales</li> </ul> </li> </ul>

Figure B.

## Appendix C

### References

#### Section I

#### Required Publications

There are no entries in this section.

#### Section II

#### Related Publications

##### AR 15-14

Systems Acquisition Review Council Procedure

##### AR 30-12

Inspection of Subsistence Supplies and Services

##### AR 32-15

Classification and Inspection (Clothing and Textile Material)

##### AR 310-25

Dictionary of United States Army Terms

##### AR 672-8

Manufacture, Sale, Wearing and Quality Control of Heraldic Items (AFR 900-7)

##### AR 700-58

Packaging Improvement Report

##### AR 700-70

Specifications and Standards Application

##### AR 702-3

Army Materiel Reliability Availability and Maintainability (RAM)

##### AR 702-4

Procurement Quality Assurance (DSAM 8200.1)

##### AR 702-7

Reporting of Quality Deficiency Data (DSAR 4155.24)

##### AR 702-9

Production Testing of Army Materiel

##### AR 702-10

Post Production Testing of Army Materiel

##### AR 715-15

Implementing Procedures for Army Single Department Procurement Assignments

##### AR 740-3

Care of Supplies in Storage

##### AR 740-22

Care of Supplies in Storage, Inspection and Reporting

##### AR 750-1

Maintenance Concepts

##### AR 750-25



Army Metrology and Calibration System

**AR 1000-1**

Basic Policies for Systems Acquisition

**TM 38-750**

The Army Maintenance Management System

**MIL-STD-109**

Quality Assurance Terms and Definitions

**Section III**

**Prescribed Forms**

There are no entries in this section.

**Section IV**

**Referenced Forms**

There are no entries in this section.

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